TOPIC INFO

TOPIC:	SELECTING DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS FOR RHEUMATOID ARTHRITIS
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TITLE:	RHEUMATOLOGIST
AFFILIATION	VIRGINIA MASON MEDICAL CENTER
TIME:	30 minutes

PRACTICE GAP ANALYSIS: SELECTING DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS FOR RHEUMATOID ARTHRITIS

Describe the problems or gaps in practice this activity will address:

What are you trying to change?

Currently nearly 2% of Americans have rheumatoid arthritis and appropriate diagnosis and initiation of disease-modifying anti-rheumatic drug within the first three months of symptom onset is now standard-of-care as per the American College of Rheumatology. Washington State is one of the worst states in the nation per the 2015 American College of Rheumatology Workforce Survey in terms of number of practicing rheumatologists to patient need. As such, in many parts of Washington State, patients can face delays of up to one year to be seen by a rheumatologist. Surrounding states, including Idaho, Wyoming, Montana, Oregon, and Alaska have similar deficits in number of rheumatologists. As such, primary care providers are managing patients with inflammatory polyarthritis, including rheumatoid arthritis, for lengthy periods of time in our region. In this talk, we aim to focus on common rheumatologic conditions (such as rheumatoid arthritis and psoriatic arthritis) seen by primary care providers and provide them with medical knowledge about diagnosis and treatment of these medical conditions.

What is the problem?

Early treatment for rheumatoid arthritis should involve patients with this autoimmune condition being diagnosed and begun on steroid-sparing disease-modifying anti-rheumatic drug therapy (DMARD) within three months of symptom onset. Primary care providers should understand what initial labs to send off for patients with inflammatory polyarthritis and how to distinguish between crystalline and non-crystalline inflammatory polyarthritis. Patients and providers should understand the incidence and prevalence (epidemiology) of rheumatoid factor (RF), anti-nuclear antibody (ANA), anti-citric citrullinated antibody (CCP), and HLA-B27 antigen studies in making a diagnosis of inflammatory polyarthritis. Primary care providers should understand the role of corticosteroids and biologic and non-biologic DMARDs in short-term and long-term management of rheumatoid arthritis and other inflammatory polyarthropathies. Primary care providers also should understand risks of infection and malignancy associated with DMARD therapy for common autoimmune conditions. Basic knowledge about risks of biologic and non-biologic DMARD therapies with pregnancy, as well as risks of corticosteroids with glycemic control in diabetes is also important.

How did you assess and/or measure these issues?

How was the educational need/practice gap for this activity identified? Place an X by each source utilized to identify the need for this activity.

Attach copies of documentation for each source indicated (REQUIRED)

* please make sure when selecting your needs assessment data and references that you highlight applicable components.

	Method	Example of required document
	Previous participant evaluation data	Copy of tool and summary data
x	Research/literature review	Abstract(s) or articles
x	Expert Opinion	Summary
	Target audience survey	Copy of tool and summary data
	Regulatory body requirements	Requirements summary
	Data from public health sources	Abstract, articles, references
	Other (describe)	

Describe the needs of learners underlying the gaps in practice:

	What are the causes of the gaps in practice? Check all that apply		
x	Lack of awareness of the problem,		Poor self-efficacy,
x	Lack of familiarity with the guideline,	x	Inability to overcome the inertia of previous practice, and
	Non-agreement with the recommendations,		Presence of external barriers to perform recommendations
	Other		

	Why does the gap exist? Check all that apply		
x	Lack of Knowledge competence		Lack of time to assess or counsel patients
x	Performance-based.		Cost / Insurance/reimbursement issues
	Lack of consensus on professional guidelines		Patient Compliance Issues
	Other:		

What do learners need to be able to know or do to be able to address the gaps in practice?

It can be addressed by making sure the prescribing physician knows

1. Outline the roles of the rheumatologist and primary care provider in diagnosing rheumatoid arthritis
2. Describe the mechanisms of action of biologic and non-biologic disease-modifying anti- rheumatic drugs used to treat rheumatoid arthritis
3. Discuss differences in outcomes and extraarticular manifestations of rheumatoid arthritis in patients with seropositive and seronegative rheumatoid arthritis

CME OBJECTIVES: SELECTING DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS FOR RHEUMATOID ARTHRITIS

State at least three or more things that participants should be able to do after they participate in this CME activity. Please note these objectives should be measurable, specific, actionable and timely.

Upon completion of this activity, attendees should be able to:

	1	Describe the roles of the rheumatologist and primary care provider in diagnosing rheumatoid arthritis
	2	Identify the mechanisms of action of biologic and non-biologic disease-modifying anti- rheumatic drugs used to treat rheumatoid arthritis
	3	Compare differences in outcomes and extraarticular manifestations of rheumatoid arthritis in patients with seropositive and seronegative rheumatoid arthritis

The ACCME does not want you to use the words - think, understand, know, appreciate, learn, comprehend, be aware of, be familiar with, etc. as they are not measurable.

You can use words such as Analyze, Categorize, Classify, Compare, Conclude, Construct, Critique, Define, Demonstrate, Describe, Discuss, Evaluate, Identify, List, Name, Outline, Show

COMPETENCIES: SELECTING DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS FOR RHEUMATOID ARTHRITIS

What ACGME or IOM related competency is associated with this activity? (check all that apply)

x	Patient Care		Practice-Based Learning and Improvement	x	Medical/Clinical Knowledge
	Procedural Skills		Interdisciplinary Teams		Teams and Teamwork
x	Communication Skills		Professionalism	x	Systems-based Practice
x	Quality Improvement		Utilization of Informatics	x	Evidence-based Practice

What is the activity designed to change

x **Competence** - (knowing how to do something)

Selecting this option requires the CME activity being planned provide participants with an opportunity to:

- hear information related to advances or best practice
- hear examples of application in practice of information presented

Performance- (actually doing something)

Selecting this option requires the CME activity being planned provide participants with an opportunity to:

- practice what they have learned during the CME activity
- receive feedback about doing what they have learned during the CME activity

Patient Outcomes- (actually measure change in patients)

Selecting this option requires the CME activity track change in patient outcomes:

- provide tangible improvements and data to support overall change to patient outcomes

What potential barriers do you anticipate attendees may encounter when incorporating new objectives into their practice?

x	Lack of time to assess or counsel patients	Other – describe:
	Cost	
	No perceived barriers	
	Lack of administrative support/resources	
	reimbursement issues	
	Insurance/	

Describe how will this educational activity address these potential barriers and the strategies used?

RESULTS: SELECTING DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS FOR RHEUMATOID ARTHRITIS

please describe the results expected (outcomes) for this activity in terms of specific improvements in patient care and/or other work related to the practice of medicine.

		Your Description
	x	Improvements in patient care based on evidence-based treatment
		Reduce Health care costs
	x	Streamline care of patients

MEASURING YOUR SUCCESS: SELECTING DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS FOR RHEUMATOID ARTHRITIS

Will use pre-and post CME activity questionnaire to measure success.

Please provide 3 questions and answers that will asked to the audience before and after your talk. The answer to these questions should be in your presentation. Please highlight the correct answer and limit your possible answers to a maximum of 4 with only one correct answer. The others can be partially correct or wrong

Question 1. This biologic DMARD has been approved by the Food and Drug Administration for management of uveitis, hidradenitis suppurativa, rheumatoid arthritis, juvenile idiopathic arthritis, ulcerative colitis, psoriasis, and psoriatic arthritis

	Answers	
	1	infliximab
	2	etanercept
	3	adalimumab
	4	methotrexate

Feedback:

1. Infliximab: Partially Correct:

   is approved by the Food and Drug Administration for ankylosing spondylitis, pediatric and adult Crohn's disease, pediatric and adult ulcerative colitis, psoriatic arthritis, plaque psoriasis, and rheumatoid arthritis.

   Ankylosing spondylitis

   Pediatric and adult Crohn's disease

   Adult ulcerative colitis

   Psoriasis, and psoriatic arthritis.

   Rheumatoid arthritis,

   Reference: Ulcerative Colitis, Rheumatoid Arthritis, Ankylosing Spondylitis, Psoriatic Arthritis, Psoriasis
2. Etanercept: Partially Correct:

is approved by the Food and Drug Administration for rheumatoid arthritis, polyarticular juvenile idiopathic arthritis, psoriatic

Arthritis, ankylosing spondylitis, and plaque psoriasis.

Juvenile idiopathic arthritis,

Psoriasis, and psoriatic arthritis.

Rheumatoid arthritis,

Reference: https://www.accessdata.fda.gov/drugsatfda_docs/nda/2003/103795s5123_EnbrelTOC.cfm

3. Adalimumab: Correct Answer

is the only biologic disease modifying anti-rheumatic drug (DMARD) approved by the Food and Drug Administration for management of all of the following conditions: of

Hidradenitis suppurativa,

Juvenile idiopathic arthritis,

Psoriasis, and psoriatic arthritis.

Rheumatoid arthritis,

Ulcerative colitis,

Uveitis,

Reference: https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/125057s410lbl.pdf

4. Methotrexate: Wrong Answer.

has been approved for various medical conditions including rheumatoid arthritis and acute lymphoblastic leukemia, but not for uveitis or hidradenitis suppurativa. It has long been used for management of inflammatory bowel diseases and psoriasis as well as psoriatic arthritis.

Reference: https://www.europeanpharmaceuticalreview.com/news/107390/fda-approves-new-line-of-methotrexate-products-for-rheumatoid-arthritis/

Question 2: Which biologic DMARD is PEGylated and is the choice for patients with rheumatoid arthritis who are pregnant or breastfeeding?

	Answers
1	certolizumab
2	secukinumab
3	ixekizumab
4	apremilast
5	adalimumab

Feedback: Please provide a detail feedback (MOC) requirements for above questions.

1. Certolizumab: correct Answer

is a PEGylated molecule with a large polyethylene glycol moiety in its chemical structure that limits its ability to cross the placenta or into breast milk. Per the Mother-to-Baby educational resource based at the University of California San Diego, animal studies found no difference in fertility when taking certolizumab. There are no formal studies looking at risks to pregnancy with any biologic medication in rheumatoid arthritis. However, minimal certolizumab has been detected in children delivered to women on this biologic DMARD medication during their gestation.

2. Secukinumab: Wrong Answer.

are not FDA-approved medications for rheumatoid arthritis. Adalimumab crosses the placenta in considerable amounts and less preferred as compared to certolizumab during pregnancy

3. Ixekizumab: Wrong Answer.

   are not FDA-approved medications for rheumatoid arthritis. Adalimumab crosses the placenta in considerable amounts and less preferred as compared to certolizumab during pregnancy

4. Apremilast: Wrong Answer.

   are not FDA-approved medications for rheumatoid arthritis. Adalimumab crosses the placenta in considerable amounts and less preferred as compared to certolizumab during pregnancy

5. Adalimumab: Wrong Answer.

References:

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- Wolf D and Mahadevan U. 2010. Certolizumab use in pregnancy: low levels detected in cord blood. Arthritis Rheum [abstract] 62Suppl10:718.

Question 3: Patients with seropositive rheumatoid arthritis are less likely to develop mononeuritis multiplex, corneal melt, rheumatoid lung disease, and Felty's syndrome compared to patients with seronegative rheumatoid arthritis. True or False?

	Answers	
	1	True
	2	False
		Feedback: Please provide a detail feedback (MOC) requirements for above questions. False. (correct Answer) Patients with seropositive rheumatoid arthritis involving either a positive rheumatoid factor and/or positive citric citrullinated antibody are more likely to have aggressive complications of rheumatoid arthritis, including risks of rheumatoid vasculitis, Mononeuritis multiplex, corneal melt, uveitis and iritis, rheumatoid lung disease (including either non-specific interstitial pneumonitis or usual interstitial pneumonia) or pulmonary nodulosis (Caplan's disease). Felty's syndrome – a trial of neutropenia, splenomegaly, and long-standing rheumatoid arthritis – is almost always seen in patients with rheumatoid factor-positive rheumatoid arthritis for many years. Reference: Nat Rev Rheumatol. 2015 Jan;11(1):8-9. doi: 10.1038/nrrheum.2014.194. Epub 2014 Nov 18. Best Pract Res Clin Rheumatol. 2004 Oct;18(5):631-45. **Review**.